



**RESILIENT**

**BAY AREA CHALLENGE**

**BY**

**DESIGN**

# Harnessing innovation to build more resilient communities

This year-long **challenge** brought together local residents, public officials, and local, national, and international experts to develop **innovative solutions** that will strengthen our region's **resilience to sea level rise, severe storms, flooding and earthquakes**. Building off of the NYC **Rebuild by Design** challenge, Resilient by Design takes a proactive approach to protecting our communities **before disaster strikes**, and climate impacts worsen.



# Bay Area Challenge Timeline

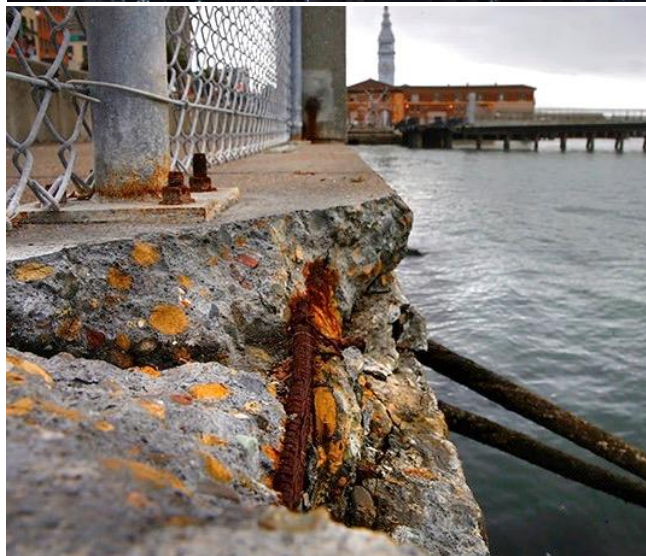


## An Open Call

# San Francisco Chronicle

Design teams compete for best solution to sea-level conundrum

*“An ambitious design competition that seeks to make the Bay Area a model for how to prepare for sea-level rise kicks off this week.”*





# Raising awareness about flooding







RESILIENT  
THE FIELD  
OPERATIONS  
TEAM

# Innovative Engagement

The Field Operations Team





The Field Operations Team



## Community Events

BionicTeam



# Co-Designing Solutions



Public Sediment & The All Bay  
Collective

# Cross-Sector Partnerships

A group of people are gathered in a meeting room, seated at tables, engaged in discussion and working on documents. In the foreground, a large map is spread out on a table, with a small decorative object and a coffee cup nearby. The room has large windows in the background, and several other people are visible at tables in the distance.

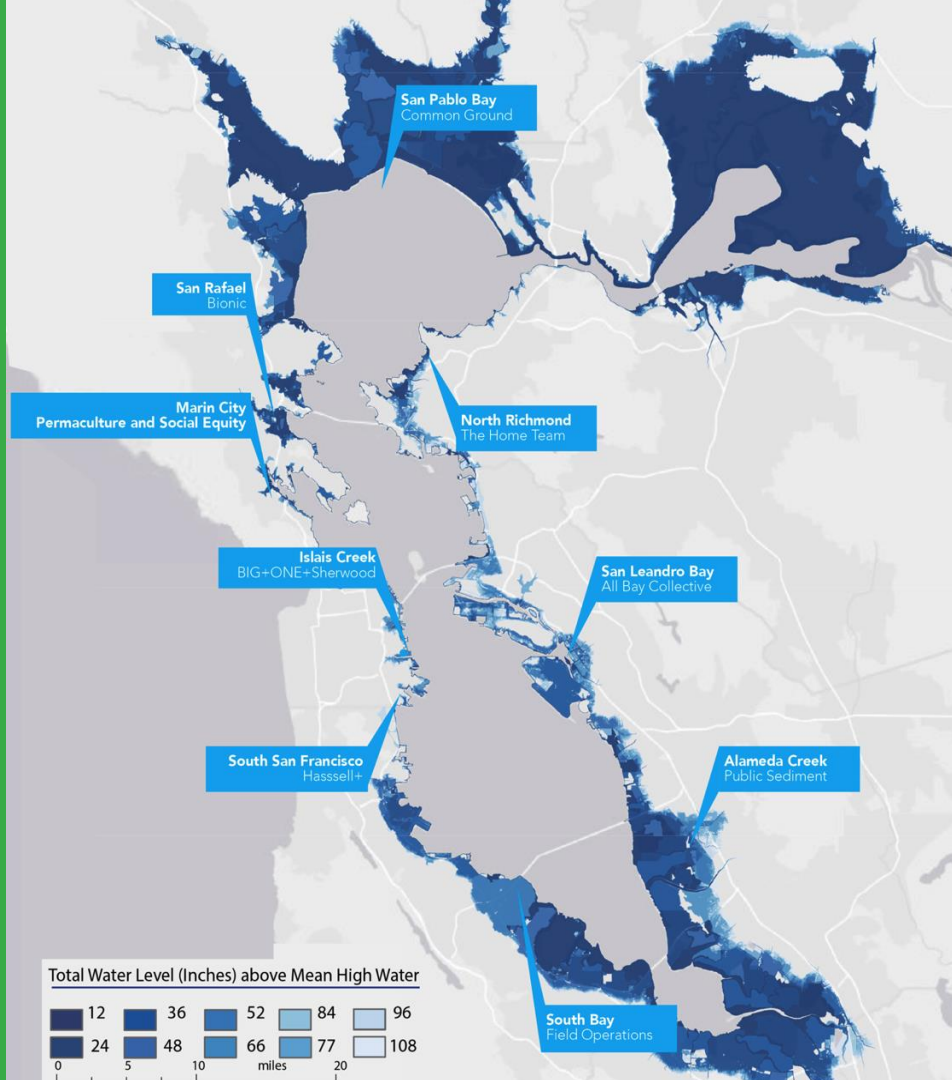
Regulatory Office Hours





# Youth Engagement

YPlan Summit



# Meet the Projects

- **The Estuary Commons | All Bay Collective**  
San Leandro Bay
- **Resilient South City | HASSELL+**  
South San Francisco
- **The Grand Bayway | Common Ground**  
San Pablo Bay
- **Unlock Alameda Creek | Public Sediment**  
Alameda Creek
- **South Bay Sponge | Field Operations Team**  
East Palo Alto to Sunnyvale
- **Islais Hyper-Creek | BIG+ONE+Sherwood**  
Islais Creek
- **Peoples Plan | P+SET**  
Marin City
- **Elevate San Rafael | Bionic Team**  
San Rafael
- **ouR-HOME | The Home Team**  
North Richmond



# Connect & Collect: Resilient South City

## San Mateo County

**Collect & Connect - Resilient South City** is a proposal to create more public space and access along South San Francisco's Colma Creek, aiming to reduce the impacts of flooding, mitigate against sea-level rise vulnerability, restore native flora and fauna, and create more amenity and healthy lifestyle opportunities by connecting a continuous green corridor from Orange Memorial Park to a new public park at the shoreline.

# HASSELL+

HASSELL  
Deltares  
Lotus Water  
Idyllist  
Civic Edge Consulting  
Goudappel  
Page & Turnbull  
HATCH  
Brown & Caldwell

304

WHAT

WOULD

YOU DO TO

BECOME

RESILIENT

HASSELL+



# Widen Colma Creek





# Living Levee



HASSELL+u

# Circle Bridge



# Orange Memorial Park





# The Grand Bayway

Solano County | Napa County | Sonoma County

The project considers a new future for highway 37 as an elevated scenic byway, creating an iconic “front door” to a vast ecological open space previously known to few. Accessible to cyclists, runners, kayakers, campers, and fishermen, the Grand Bayway will become a Central Park with more 21st century sensibilities for rapidly expanding North Bay communities.



# Common Ground



TLS Landscape Architecture | Exploratorium | Guy Nordenson & Assoc | Michael Maltzan Arch| HR&A Advisors | Sitelab Urban Studio | Lotus Water | Rana Creek | Richard Hindle, UC Berkeley | Fehr & Peers Transportation Consultant

Common Ground



# Elevated Highway 37



Common Ground



# Napa Junction



Common Ground



# Mare Island Gateway



Common Ground



# Unlock Alameda Creek

Alameda County

**Public Sediment for Alameda Creek aims to reconnect sediment flows from Alameda Creek to the marshes and mudflats at the bay's edge, creating protective ecological infrastructure that adapts to sea level rise.**

**Public Sediment**



# Public Sediment

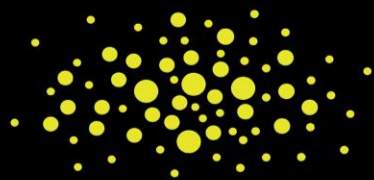
SCAPE Landscape Architecture | Arcadis |  
Dredge Research Collaborative | TS Studio | UC  
Davis Department of Human Ecology and  
Design | UC Davis Center for Watershed  
Sciences | Buoyant Ecologies Lab

Public Sediment

#PUBLIC  
SEDIMENT

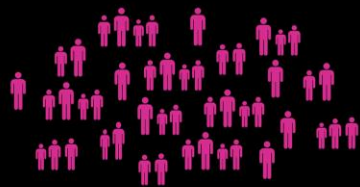






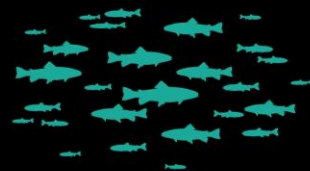
**SEDIMENT**

+



**PEOPLE**

+



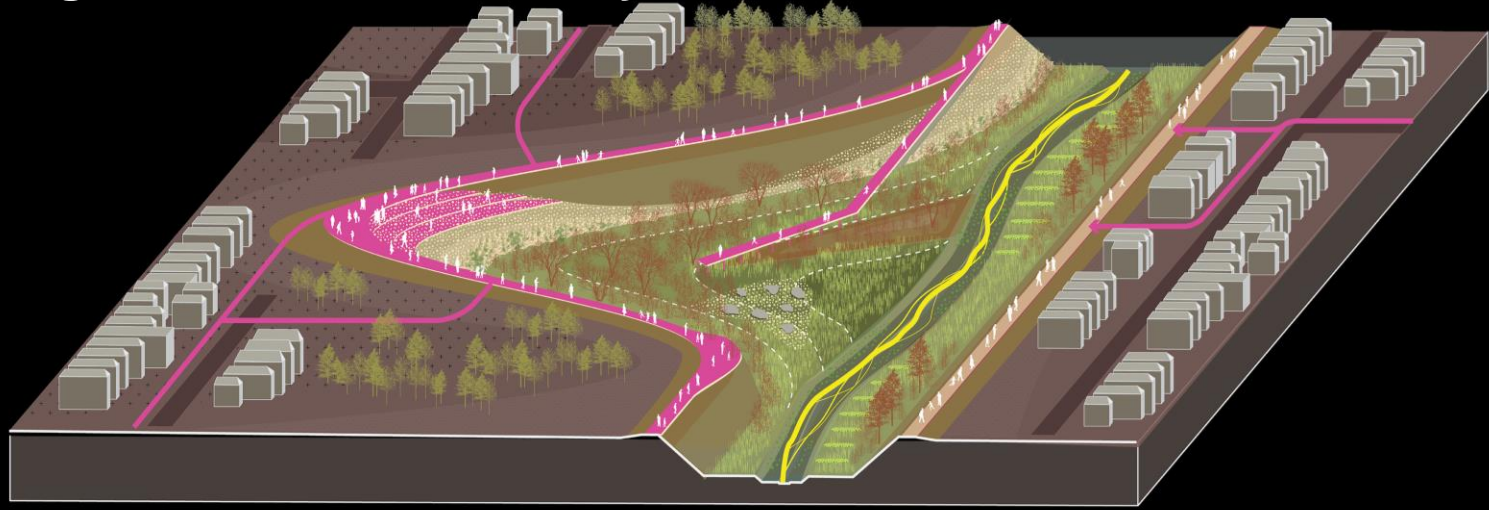
**FISH**

**UNLOCK ALAMEDA CREEK**

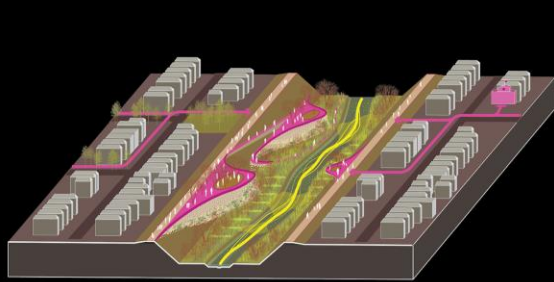
Public Sediment



# Building a Creek Constituency

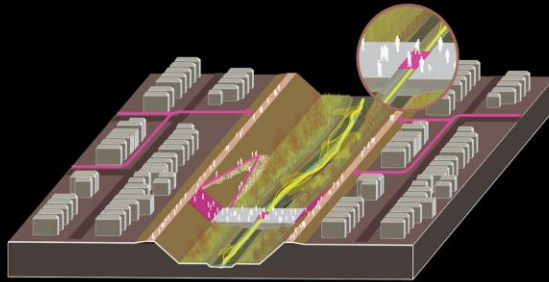


FLOODROOMS

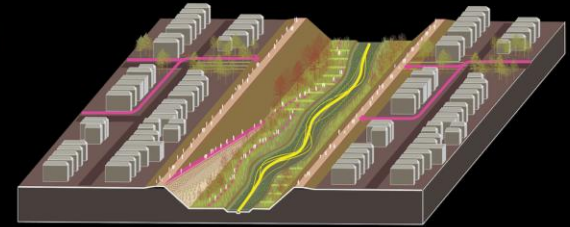


MUDROOMS

Public Sediment



SEASONAL CROSSINGS



TERRACE TRAIL



# The Flood Terrace Trail



Public Sediment



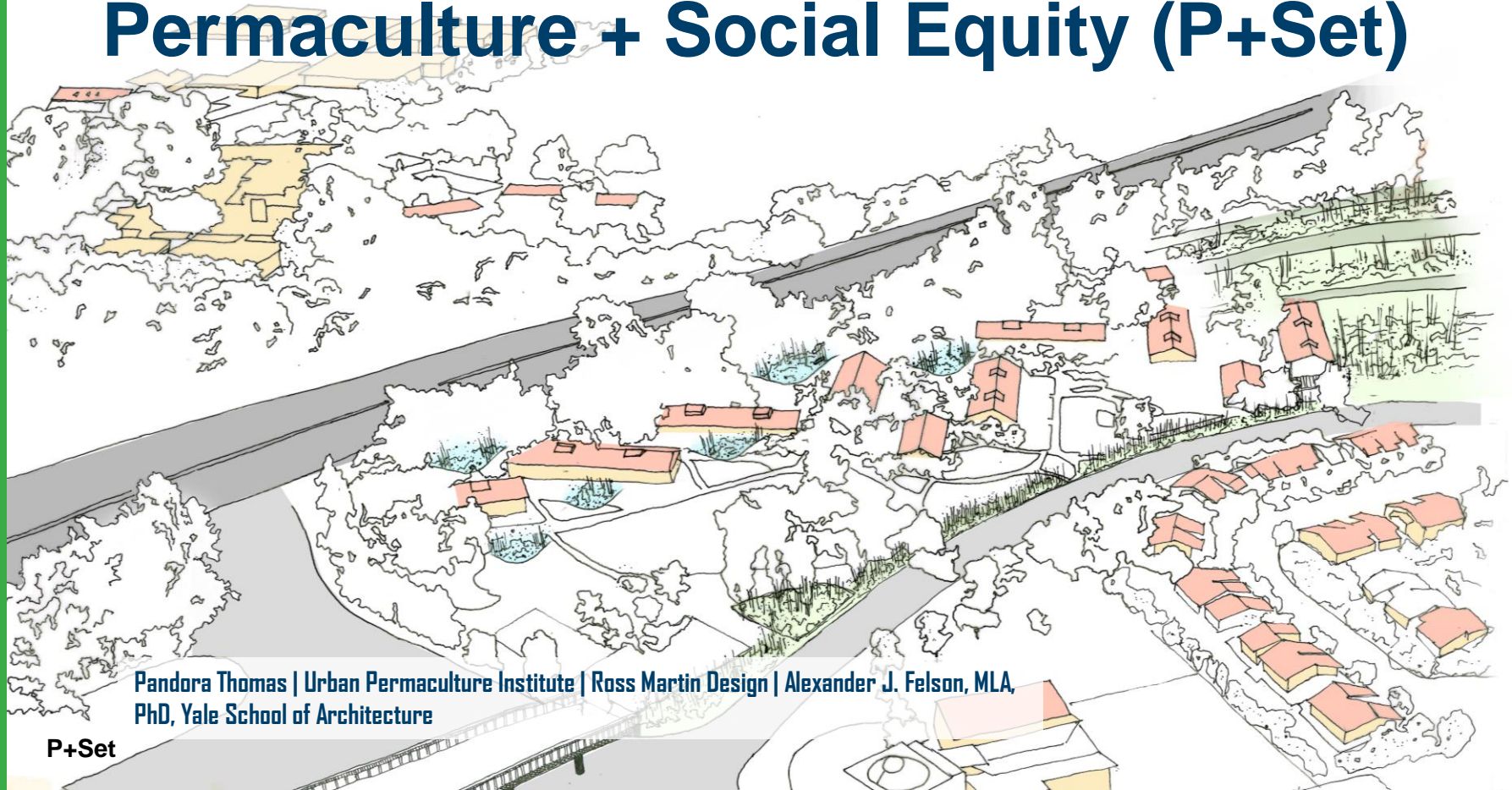
# The Peoples Plan: Designing our Own Solutions

Marin County



**"DESIGNING OUR OWN SOLUTIONS" FOR RESILIENCY  
PLANNING**

# Permaculture + Social Equity (P+Set)



Pandora Thomas | Urban Permaculture Institute | Ross Martin Design | Alexander J. Felson, MLA,  
PhD, Yale School of Architecture

P+Set







# Lessons LEARNED

COMMUNICATE w/  
STAKEHOLDERS:  
LESS JARGON  
OR BE FUN

**COMMUNICATE  
the URGENCY!**

BE A CHAMPION  
EACH DESIGN  
PROPOSAL

ITY:  
FROM  
LOCAL VISIONS

**PROCESS**

Initial:  
mail...  
- STEPS  
KELLY

WE NEED A  
PAID CITIZEN  
JURY for the NEXT  
DESIGN CHALLENGE

WE need a  
**SYSTEMS  
THINKING**  
APPROACH!  
(For ALL aspects...  
Not just ECOLOGICAL)

**GOVERNANCE**

FRAGMENTATION  
of WATER GOVERNANCE  
in BAY REGION...

REGION &  
STATE need  
to OWN AFFORDABLE  
HOUSING  
(RELYING ON PRIVATE  
INDUSTRY IS FRAGMENTING  
OUR COMMUNITY)

NEED GOV. INFRASTRUCTURE  
(CBDs, GHAs) TO RECEIVE/  
TAKE ADVANTAGE of FUNDING

DISPLACEMENT  
& ROLE of Regional  
GOVERNANCE

EMBED RESILIENCE  
INTO ALL:  
HOUSING  
ACCESS  
MOBILITY Plans

COOPERATION  
AMONG AGENCIES  
& COMMUNITY

INCLUDE  
COMMUNITY MEMBERS  
IN DESIGNING  
PHYSICAL INFRA-  
STRUCTURE

PLACE  
NAMES  
MATTER

BE WELL  
ORGANIZED  
BEFORE a  
DISASTER

COULD BE A Great  
DESIGN, BUT IF  
COMMUNITY DOESN'T  
EMBRACE it...  
IT WON'T WORK

**COMMUNITY**

WORK w/  
COMMUNITY  
BEFORE LAUNCHING  
projects

INVEST IN  
COMMUNITY  
ENGAGEMENT  
from BEGINNING

"AGENCY"  
COMES FROM  
STABILITY  
(& Need Agency  
to ACT)

COMMUNITY  
SHOULD  
SELECT  
DESIGN teams!

**BE HOLISTIC**

INTEGRATED  
FRAMEWORK/  
PRINCIPLES

**EQUITY**... MUST BE  
"INTENTIONAL!"  
DESIGNERS &  
PLANNERS SHOULD  
BE USED AS TOOLS...  
(vs. Communities  
being used as TOOLS)

**EDUCATION**

A POWERFUL TOOL to  
ADDRESS SOCIAL  
RESILIENCE & EQUITY,  
CAPACITY BLDG, &  
INTER-DISCIPLINARY  
COLLABORATION

ACADEMIC  
SCHOLARLY  
LANGUAGE  


DISCONNECT  
IN LANGUAGE  
USED... RE:  
CLIMATE CHANGE

USED IN PLANNING...  
DOES NOT TRANSLATE

CRITICAL!  
WRITE GRANTS...  
TOOLS...

AVG. CITIZEN or  
ELECTED OFFICIAL  


UNDERSTANDING  
& AWARENESS of  
COMPLEXITY of  
PROBLEM

HUMAN/NATURE  
WIN/WINS  
CO-BENEFIT

**ECOLOGY**

NEED to VALUE  
NATURAL HABITAT  
MORE... WHY DO  
WE HAVE to "JUSTIFY"  
MARSHES?

**DATA**

SHARE  
DATA w/  
PUBLIC &  
PRIVATE SECTOR

ADDRESS  
the DATA  
GAPS

**CAPACITY  
BUILDING**

INVEST IN  
SOFT SKILLS  
TRAINING to ENHANCE  
STAKEHOLDER ENGAGEMENT

To Deliver  
FUNCTIONAL  
ACTION PLANS

IMPT to HAVE  
TRUSTING PARTNERS/  
DIALOGUE

TECHNICAL TRNG  
& RESOURCES needed  
IN COMMUNITY & IN  
PUBLIC AGENCIES



# What's Happening Now?

- Assessment of overall effort; sharing lessons learned
- Developing strategic work plan for advancing work
- Connecting projects with funding; cultivating local and regional champions







RESILIENT

BAY AREA CHALLENGE

BY

DESIGN

To learn more visit: [www.resilientbayarea.org](http://www.resilientbayarea.org)